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ABSTRACT

This paper suggests that computer assisted language learning (CALL) can and should be used in language education in Japan in more effective ways. It suggests practical ideas for incorporating the use of computers into English language instruction in Japan. Japanese teachers of English have many concerns about the use and efficacy of computers in the classroom. This paper addresses these concerns by making the following points: (1) the use of computers can offer more authentic examples of the English language in use (newspapers, broadcast media) and opportunities for realistic communication (e-mail), both of which can facilitate language learning; (2) using CALL, learners can proceed at their own pace and take more risks; (3) using CALL, teachers can address the different learning styles of their students through multimedia with pictures, sound, movies, and text offering several different ways to deal with the same material to suit various learning styles; (4) networked computers can be tools for communication in which learners can engage in interaction using the target language. The usefulness of computers is investigated in specific ways, focusing on reading, writing, listening, speaking, and integrated skills. In each section, specific activities are suggested and methodological issues are reviewed. Worksheets are included. (Contains 50 references.) (Author/KFT)

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Computers for English Language Learning in Japanese Schools

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I. Introduction

The use of computers is becoming more commonplace throughout the world. In education, the use of computers has been developing rapidly due to the improvements in both software and hardware. In Japan, for example, more and more schools have computers for students' use and are connected to the Internet for communication and for information gathering. Indeed, the computer is expected to become more prevalent as yet another educational tool, like other ordinary tools such as the tape recorder or OHP. However, in the English language curriculum in Japan, many teachers seem to feel somewhat uncomfortable with computers and often do not want to use computers in classes. Where computers are used, the usage might not be efficient and appropriate as it could be. This situation is a waste of a valuable educational resource as well as a waste of precious time and efforts. The thesis of this project is that, despite teachers' hesitation and need for training, computer assisted language learning (CALL) can and should be used in English language education in Japan in more effective ways. The purpose of this paper is to suggest practical ways to incorporate the use of computers into English language instruction in Japan.

To be sure, Japanese teachers of English (JTEs) have legitimate concerns about the use of computers for English lessons. Some teachers worry about the amount of time that it takes to include computer use in the lessons which may already have an excessive amount of content goals to cover. Also JTEs have very busy schedules that make it difficult to find the time to get training in using computers and difficult to take time to prepare new lesson plans that include the use of computers. In addition, some teachers may doubt the effectiveness of the use of computers for English language learning. One reason for this doubt was that early CALL material in the past was simply a computerized version of the traditional gap-filling, substitution, or multiple choice types of activities. Another reason is that JTEs may even fear that the communication or the student-centered activities of a CALL lesson may result in loss of teacher control.

To address these concerns, this project shows that the advantages of using computers for language learning can make learning more effective. First, the use of computers can offer more opportunities for authentic examples of English language in use and opportunities for realistic communication, both of which can facilitate language learning. For example, learners will have access to a much wider range of real documents written in English for practical purposes, such as advertisements or newspaper articles. Also, learners will feel it easier to write an e-mail message and revise it on a computer than to write with paper and pencil. For these reasons, learners often feel more motivated to practice the language when they use a computer.

Second, using CALL, the learners can proceed at their own pace and take more risks. The learners can concentrate on their own learning and spend as much time as they want in order to learn the target point. With CALL, they will not be afraid of making mistakes because, for example,

a computer will never get angry or tired.

Third, using CALL the teachers can address the different learning styles of their students, as Bickel and Trusscello (1996) show. Multimedia with pictures, sounds, movies and text can offer several different ways to deal with the same materials. That variety will help to address the needs of students with different learning styles.

Furthermore, connected to a network, computers can be tools for communication in which learners can engage in interaction using the target language, providing more ways to facilitate language learning. For example, on the Internet or on Local Area Networks (LANs), the students may enjoy writing e-mails back and forth or chatting through a conferencing system in English. A network offers possibilities to communicate with people in a wider area both geographically and chronologically. In a word, the computer can be a scaffolding device for language learning.

In the following sections, the usefulness of computers is investigated in specific ways, focusing on reading, listening, writing, speaking, and integrated skills. In each part, suggestions for possible activities are mentioned and related methodological issues are reviewed briefly. Moreover, along with advantages, some practical advice is given in order to design effective lessons. Some current software and Web sites are referred to, with the understanding that changes in computers have been rapid so far. The main point is to demonstrate clearly that CALL is not a substitute for a human teacher, but rather a powerful tool for language learning. Indeed, suggestions are presented here in order to help teachers get started in using CALL for English lessons.

II. Focusing on specific skills

A. Reading: Using computerized reading activities

Using the computer for reading activities can be a good start for novice teachers and beginning students because it requires minimal keyboarding skills. To read on the computer, all the students have to do is just mechanically mouse clicking. For several reasons, reading on the computer is effective for enhancing comprehension. First, computerized texts can easily be adapted in different formats. For example, teachers can choose readings from textbooks offered in CD-ROM by a publisher. The teacher can make the reading into a quiz activity such as a fill-in-the-gap exercise with ease. Another possibility is that the teacher can show the texts in different ways, for example, emphasizing some parts in different colors or larger fonts to show certain features such as specific vocabulary or grammatical structures with ease. That variety of appearances will prevent the students from feeling bored with the texts and can give them fresh motivation to learn.

Another reason that the computer can enhance reading comprehension is that texts with images especially can facilitate comprehension. As Ikeda (1999) shows, images seem to play an important role in allowing the students comprehend the texts. For example, students can more easily

infer the meaning of a text with the use of visual aids. In that sense, visual aids on the computer are a binding device to connect form and meaning, as Kost (1999) points out.

The third reason is that the students are more likely to continue working on reading the texts when the texts are supplemented with sufficient learning support, such as help files or an on-line dictionary or thesaurus. As Cummins (1998) maintains, students can learn more with comprehensible input if the problem in understanding the meaning disappears rapidly enough. For example, an on-line dictionary will make the students feel that it is easier to look for the meaning of an unfamiliar word, and the attention to the flow of the story will not be disturbed. Thus, the students can understand and learn more with a sufficient learning support.

The fourth reason is that almost all of the reading materials are authentic when they are drawn from the Internet. "Authentic" means that the materials are prepared for native readers to accomplish a certain task, such as to read the news or get the information for travel. Authentic materials facilitate language learning, and according to Cobb and Stevens (1996), they can be motivating and not daunting to the learners when the learner's task is carefully guided.

Thus, the use of readings from the computers offers these four advantages: variety in format, use of images, supplemental aids, and authenticity. Whether the readings are drawn from stand-alone sources such as a CD-ROM, word processing or other software, or from network sites on the Internet, using computer-based reading provides clear benefits.

1. Example A: Use of text manipulation or reconstruction software

One practical example of a possible activity in the stand-alone environment is a reading comprehension quiz based on the class text that the students are studying at the time. The general purpose of this reading activity is to check students' understanding of the text or to make the students aware of certain features such as grammatical points.

For example, when the teacher wants to find out how well students understand a text, the teacher can give cloze tests on the computer. A pre-activity for this CALL activity could be the regular reading lessons. To prepare cloze tests, the teacher can make use of text manipulation or reconstruction software such as *TexToys*. Such software is useful because the materials are often already available in computerized text format offered by a publisher. In the CALL activity, the students have to guess the missing words from the hints, which should be effective both for vocabulary learning and for grammatical understanding. As a post activity, if the teacher finds that the students have difficulty with a grammatical point, the teacher can give them more practice on that grammatical point in a regular class after the CALL activity.

Reading comprehension can be promoted with the use of such text reconstruction or manipulation software according to Brett (1994) and Cobb and Stevens (1996). For help find the

text reconstruction or manipulation software, teachers can search on the Internet with the key words "text manipulation" or "text reconstruction", and they will find many kinds of useful software such as *TexToys*.

2. Example B: Unscrambling a reading

Another example of using computers for reading is to use unscrambling story strips. The teacher can use any word processing software such as *Note Pad* to create the activity. The specific reading lesson objectives for these unscrambling activities can be to make the students aware of the story flow, conjunctions and pronouns. Before the CALL activity, the students have read the reading in the regular lesson. The teacher prepares the entire text on the word processor. Then the teacher can separate the sentences and mix them up. After that, the teacher can either save the files onto the floppy disk or send the files to the computers for the students on LAN. In the CALL activity, the students unscramble the mixed-up text and print it out to read. The teacher collects printouts at the end of the activity. After the CALL activity, the teacher can assign a task more focused on language such as highlighting conjunctions or pronouns. This follow-up activity can be done on the computer or paper.

3. Example C: Skimming and scanning on the Internet

One more example of a reading activity is to search for information on an Internet site. This is a good activity for skimming and scanning. Some EFL learners are so accustomed to reading word by word that they need practice reading fast. Skimming for specific information and scanning for the main points can be a good exercise for them to learn to read quickly as is necessary in daily life.

The lesson objective here is to find specific data by reading on the Internet. The teacher prepares by identifying one or several good search engines. The teacher makes a handout with the uniform resource locators (URLs) of the search engines and five boxes. (See Appendix 1 for an example of a handout.) In class, the teacher makes, for example, twenty pairs or ten groups of four students. The students brainstorm with their partners to decide what information they want to find out. The information should be on topics available in English; for example, "the birthplace of Britney Spears" or "the number of movies Meg Ryan starred in." The teacher asks the students to come up with five pieces of information that they want to find out and to write a list of the information questions or topics on a piece of paper. The teacher can collect the papers and check the students' decisions to be sure that each group has decided on adequate topics.

In the computer lab, the students search on the Internet beginning with the search engines. The teacher can let them wander a bit on the Internet, but try to keep them on the right track with a

time limit. The students only need to find the pieces of data and they should be reminded to spend only ten minutes on each topic. As they read and find the data, they fill in the handouts with the information and URLs. This activity may take the full lesson, about fifty minutes to search for five topics. A good post-activity is that during the next lesson, the teacher can give the handouts to different pairs or groups and tell them to double-check the information. This activity will take only a short time because the students will already have the URLs.

In general, a lesson using computerized reading activities can be related to the regular lesson topic. Then, reading comprehension activities using the computer can add more productive outcomes in terms of better comprehension, faster pace, and reinforcement of grammar and vocabulary to ordinary reading lesson activities.

B. Writing: Using the computer as a writing device

Using the computer as a writing device is effective in developing writing skills, especially learning writing as a process of revising. One reason is that, as Pennington (1993; 1996a) and Phinney (1996) point out, revising on the computer is easier than revising with pen and paper. The process of revising, which is necessary to develop writing skills, but tedious for students with pen and paper, takes less time and effort using computers. Therefore, the students can concentrate on the content more easily. Thus, the students might willingly write more drafts and make more substantial revisions, as Warschauer (1995) reports. According to Pennington (1993; 1996a) and Phinney (1996) again, it is expected that writing on the computer has positive effects on both the quantity and the quality of writing.

Another reason is that, as Beauvois (1997) states, writing for communication in a networked environment can be a scaffolding setting for the students. Both asynchronous communication such as e-mailing, and synchronous communication such as chatting, can yield a feeling of community. In the community, the students are expected to write longer and in more detail to get their ideas across clearly. Moreover, especially when students write anonymously, they can take more risks in terms of vocabulary and grammar because they will not lose face. When there is a misunderstanding, then students are more likely to try again by rewriting. One example can be seen in the report of Nelson and Oliver (1999), where communication in e-mail is collaborative among students to accomplish a task. Another example can be seen in the reports of Leppänen and Kalaja (1995) and Skinner and Roger (1999), where computer conferencing through writing is used to enhance written communication between teachers and students, or among students. Thus, with the computer students are encouraged to write to communicate more bravely and freely in the networked environment.

1. Example A: Writing a journal on the word processor

Writing a journal on the computer can give the students a good start, particularly in writing as a process. What is necessary to prepare the activity is simply word processing software. For the pre-activity, the teacher tells the students to take some pictures or notes during one week to remember some memorable events. In the CALL activity, the teacher tells them to write one journal entry each week with the word processor. The students may do this in pairs to help each other. The teacher asks the students to print out their first drafts and exchange their journals with their partners. The students read for ideas but they do not check mistakes. Instead, they give their partners comments about the ideas by noting on the draft. At the end of the class, the teacher collects the first drafts. In the following lesson, the students can revise their first drafts, and then teacher collects them, and makes a file for each.

After several trials, the teacher can assign a task for each student. For example, if a student has been persistently making mistakes in the third person -s agreement, then the teacher can assign a grammar drill. Finally, the teacher gives them back their files containing all the drafts to make them aware of the progress they have made.

2. Example B: Discussing an issue using e-mail or bulletin board

E-mail gives the students a good chance to write to communicate. E-mailing with specific purposes will keep the activity interesting, so it is recommended to incorporate some specific topics of interest into the activity. What is necessary for this activity is e-mail software. Before the CALL activity, the teacher asks the students to brainstorm in class about a timely issue, such as the dress code in school, and tells the students to decide on the opinion they want to support. Then, the teacher forms groups of students who share similar opinions.

In the CALL activity, each group e-mails to the teacher, writing about their opinion on the issue. On receiving the e-mails, the teacher sorts them according to the opinions and makes a chart to print or to post anonymously onto the bulletin board system (BBS) if possible. The students read the chart or BBS, and write their responses to other students' opinions. Some variations of this writing activity as a follow-up can be to try to make the discussion open to the world, for example, by having a web page with BBS to foster discussion on the Internet, posting the discussion to a foreign school, or asking a native speaker of English such as the Assistant Language Teacher (ALT) to read the discussions and give comments.

3. Example C: Publishing class newsletter

Collaboration with peers through writing gives the students another motivation to write. Publishing a class newsletter as a group work can be an exciting writing experience for them. First,

the teacher forms small groups of between five and eight students. The teacher should be sure that at least one student takes the leadership role in each group for collaboration.

As the first step to writing an article, the teacher asks each group to decide on a movie or television program to write about. After deciding on the topic, the students engage in planning session by writing everything related to the topic without lifting pencils for a short time, for example, one minute. Then, the teacher asks the students to organize the ideas into several main points to write about in their article. Then, students working in pairs share the organized plan.

In the computer lab, the students in pairs write their sections using the word processor. After finishing the first draft, they save the files, and the teacher prints all the articles for the groups to read. The use of pictures might be encouraged. After the students discuss the content and proof read in groups, they rewrite the articles, and then put the five articles together. The teacher can collect all the finished articles as one word processor document file to print out on paper or as a hyper text markup language (HTML) document file to publish on the network.

After the CALL activity, the student will enjoy reading their class newsletter either on paper or on the network. If the class newsletter is on the LAN in the school, there can be responses from other classes, and if on the Internet, there can be some responses from all over the world. The teacher can oversee the content of the messages by reading the messages before the students read them. Writing using the computer to create and publish something as a class can be a great motivating experience.

In fact, using the computer for writing is perhaps the most frequent use of the computer for authentic communication. As Pennington (1996a) specifically investigated, computers have natural connection with writing. Moreover, according to both Beauvois (1997) and Egbert (1999), writing competence can be transferred to speaking competence. Thus, the more students become familiarized with writing on the computer, the more effectively they will approach authentic communication both in writing and speaking.

C. Listening: Using computerized listening activities

Using the computer for listening activities offers a convenient and facilitating environment for learning language. One reason is the capability of the computer to provide access to more listening data than other devices such as audiocassettes. When listening data is provided in CD-ROMs or on the server computer in a network, technically there is no limitation for the amount of data. In addition, the listening data on the network accessed in that way is reachable at any time for multiple users. Because of this accessibility, computerized listening data has an advantage over traditional listening data recorded on audiocassette. Moreover, audiocassettes and videocassettes are

in analog data format, so manual cueing and rewinding are necessary to locate a specific section. In a digital format on the computer, however, it is easier to locate a specific excerpt without manual rewinding.

Another reason for incorporating computer-based listening into lessons is the potential of providing listening activities in multimedia environment. Listening with the help of aids such as texts, pictures and movies are easier for learners to understand than listening with audio only, as Hoven (1999) points out. Hoven (1999) maintains that computerized listening activities can provide a learner-centered environment with various levels of learning support, in which learners have choices that corresponds to their learning styles. Thus, computerized listening data is more convenient both for students and for teachers.

1. Example A: Listening to ready-made materials

One example of using the computer to practice listening is to make use of downloadable audio files provided by several EFL/ESL Web sites, such as *Randall's ESL Cyber Listening Lab*. This Web site provides graded material from basic to advanced levels. Teachers do not have to worry about access to the Internet during the lesson because the teacher downloads the files beforehand. Moreover, listening materials from the Internet can be played individually as many times as students want, which facilitates learning.

This activity requires very little preparation by the teacher. The teacher simply downloads the Web page on the storage device such as the hard disk. Then the teacher makes handouts. The type of handouts differs depending on the characteristics of the Web site. In the case of *Randall's ESL Cyber Listening Lab* mentioned above, the handouts can be the print-outs of the comprehension questions from the Web pages. If the Web pages have pre- and post-activities, the students can complete every step without any skipping. The teacher can allow the students to skip some steps if they make rapid progress. In this way, the students listen to and review the audio files at their own pace, so the listening practice is more individualized. This activity is one of the easiest ways for teachers to incorporate the use of computers into a lesson.

2. Example B: Listening to review the textbook

Listening comprehension can easily be improved by incorporating the use of the computer with the usual textbook activities. Students in Japan generally need more listening practice than the textbooks provide. Another example to use the computer for practicing listening is to make use of audio data provided by the publishers.

Before the CALL activity, students read the textbook passage as part of the normal lesson for preparation. The teacher can then prepare an audio data file by recording the audio portion of the

lesson onto a CD-ROM, using an audio editing software such as *GoldWave*. This type of software is used to re-record from audio or CD to digital diskette form; it can also help the teacher to edit or re-arrange the listening material. To create the CALL listening activity, the teacher uses the audio editor to create an audio file, dividing the listening into parts. The teacher prepares a handout with a transcript of the parts of the listening passage. (See Appendix 2 for an example of a handout.)

During the CALL activity, the students mark the sentences on the handout with the audio file on the computer. The students begin by listening to one part and, for example, checking off on the handout the sentences that correspond what they hear. Students can easily listen again by clicking on the desired portion of the audio file. This practice activity helps student to develop their listening comprehension because they have the aid of the digitized format so that they can re-listen, and the handout also serves as a scaffolding device.

After the CALL activity, the teacher can give an oral quiz to check the students' listening comprehension. This can be a multiple-choice test printed on paper. If the students find some difficulties in listening, they can go to the computer lab and listen to the audio files after or between lessons.

3. Example C: Listening for specific information

One more example is to make use of an encyclopedia with audio materials. An encyclopedia CD-ROM title such as *Microsoft Encarta 2000* has a lot of visual aids in many of the topics, ranging from the simple topic of "color" to the more complex topic such as "the Vietnam War." Teachers can find many topics which may interest their students or relate to the topics in the current learning materials.

The teacher selects a topic such as "telephone" from the encyclopedia, listens to the narration, and makes a handout. If the closed-caption function is not available, the teacher can transcribe the narration. To check listening comprehension, the teacher makes ten questions with multiple choices, for example: Q: What device is used for local calls? 1: Cable system, 2: Satellite, 3: Routing station. Before the CALL activity, the teacher asks the students some questions about telephone to activate students' knowledge and to anticipate what they might hear. In the computer lab, the students listen to the narration and watch the animation without captions. After listening and watching through once, they can listen to one part, answer the question, and then proceed to the next step. This might be done with headsets to avoid a noisy situation. After collecting the handouts, the teacher lets the students listen and watch again with captions or a transcription to review.

In the regular class, after the CALL activity, the teacher gives a list of vocabulary. That vocabulary list includes key words used in the narration such as "cradle," "receiver," "cellular", and other common words about the telephone such as "hang up," "wall jack," and "cord." The activity

can include translation and pronunciation practice. When the pictures in the animation are available, translation might not be needed. After the lesson, the students can go to the computer lab to listen and see the visual aids at any time they like.

As of this writing, listening with computers is already increasingly commonplace. The audio quality on computers has been improving. New software standards are being developed to allow more shared audio and multimedia. Therefore, it is expected that more students will soon have opportunities to engage in listening activities with the computer, on CD-ROMs, or via the Internet at lower cost to the school.

D. Speaking: Using the computer as a speaking device

Using the computer for speaking activities offers a very effective scaffolding reinforcement tool for learners, as Beauvois (1997) points out. For many Japanese learners, it is often more encouraging to practice speaking using computers than speaking face-to-face. The reason is that learners often feel more confident when they practice speaking using computers than in a face-to-face setting. When students practice pronunciation, for example, using the computer, they can feel free to pronounce without feeling embarrassed by their errors. In addition, provided with visual aids such as pictures, and explanations such as help files, on the computer, students can practice more effectively and confidently. Thus, speaking practice using the computer gives learners a safe environment.

Another advantage of the computer for speaking is interactive communication in the networked environment. When the students communicate on the LAN or the Internet with their peers, they will need to produce a considerable amount of output to have smooth communication. That communication can be full of negotiation of meaning and comprehensible output, both of which facilitate learning. Therefore, the computer environment has a great advantage for the students to develop "Spoken language competence, or what is generally referred to as 'communicative competence'", according to Pennington and Esling (1996b, p. 154).

1. Example A: Conversation practice

One example to practice speaking using the computer is to have the students record one part of a dialogue after the cue sentences. The software needed for this activity is an audio editing program for making recordings, such as *GoldWave*, and an audio player which can play a series of audio files. The material used for this activity can be a dialogue of a conversation drawn directly from the textbook. To prepare the CALL activity, the teacher records each line of the dialogue using the audio editor. After the students practice the dialogue in the normal class, in the computer lab,

they listen to one part of the dialogue, record the corresponding utterances using the audio editor, and save their speech on an external storage device such as a floppy disk. For example, when they hear "Hello. How are you doing?" then they can record "Fine, thank you. How about you?" After recording, the students listen to the whole dialogue with the audio player. The students can re-record their responses if they want to try again after listening. At the end of the activity, the teacher collects the audio file or diskette to check and provide feedback. After the CALL activity, it is recommended that the students practice the conversations face-to-face because they will now feel more confident with their responses.

This activity is one variation of pair talk. What is different from normal pair talk is that the students can concentrate on their own parts, and therefore do not feel uneasy speaking with a partner in this CALL activity. Moreover, they can understand the meaning of the whole dialogue when they listen to it. Because the dialogue is meaningful to them, they will know the purpose of the conversation. This authenticity of the dialogue facilitates learning in a communicative way.

2. Example B: Pronunciation assistance

Another example of using the computer for speaking is practicing pronunciation in order to speak more clearly. Using computers, it is possible to create a visual of the students' pronunciation without much difficulty. This visual lets the students know what should be improved in their own pronunciation.

Software needed for this activity is an audio editor such as *GoldWave*. The teacher prepares by recording some specific words in a computerized audio file for students to use as a model. If possible, it might be recommended to prepare the recording in both male and female voices. In the CALL activity, the students listen and record their own pronunciation with the audio editor and then compare their pronunciation with the model pronunciation. The boy students can take the model recorded in a male voice, and the girl students can take the one in a female voice, for natural comparisons. An enhancement to this activity is to add it a video component so that students can also watch the model.

3. Example C: Use of conferencing

The last example is to make use of audio or video conferencing. Conferencing over the network is effective in developing speaking competence. Again, some students who might not talk much during speaking activities during the regular class are more willing to talk in a computerized environment. Conferencing is available on both LAN and the Internet.

In this example, conferencing is done on the LAN. Conferencing software such as *NetMeeting* on the LAN is necessary. The teacher can make use of either the audio or video parts,

depending on what is available. Before the CALL activity, in the regular class, the students practice how to talk over the telephone. After that, the teacher asks the students to form groups, for example ten groups with four students each. Then, the students engage in role-plays of telephone conversations with a scenario. For example, half of the class can play the customer service representatives of a company such as a department store, and the rest of the class are the customers with complaints. The role of the customer is to complain to the service representatives to get a desired outcome, and the role of the customer service representative is to persuade the customer to be patient and wait for a while before the complaints can be resolved. What each partner does not know is the information gap. For example, the customers are told to act impatient, and the service representative is told to be careful of customers who are in a hurry. Then in the CALL activity, the students work in pairs to act out the role-play. After reading the directions and the scenario, the customers call the service representatives through the LAN, and act out the role-play. The teacher circulates to help as needed during the role-play. (See Appendix 3 for an example of a handout.)

This activity can help build students' speaking skills when dealing with unexpected situations in a conversation. Furthermore, students are more likely to speak when they do not see their partners face-to-face. In this way, using computerized conferencing creates a safe environment for practicing interactive speaking skills.

Using the computer for speaking activities is to be explored more as of this writing. Speaking activities on the computer are still in the developing stages compared to writing activities. However, advantages of speaking practice on the computer are promising for language learning. For example, several researchers including Aist (1999), Coniam (1999), and Witt and Young (1998) study the use of voice recognition software, such as *NaturallySpeaking*, and conclude that the use of voice recognition software is of some help in spite of some inaccuracy recognition. Considering the rapid development in the field, teachers who want to make fuller use of computer power for speaking activities should regularly take a close look at the developments to prepare themselves to try new technology and methods to yield better results in language learning .

E. Integrated skills: Using computers to integrate the four skills

Because most English language courses in Japanese schools have a combination of skills as the course objectives, it is especially useful to employ CALL activities to achieve an integration of skills. In addition, when each skill is integrated in one activity, one skill reinforces the others, so the students learn more.

1. Example A: Introducing a place - reading and speaking

In the CALL activity, students practice both reading and speaking about a sightseeing place of interest. Before the CALL activity, the teacher locates a site for sightseeing on the Internet, for example, *National Geographic Traveler.* In addition, the teacher prepares a handout in a word processor file. That handout has three boxes for pictures and columns for information to be filled in. (See Appendix 4 for an example of a handout.) In the previous lesson, the teachers asks the students where they would like to travel, showing them fifty places, for example, and tells them to decide one place to travel. The students may form groups, pairs, or chose to work alone, then tell the teacher the place. In the CALL activity, the students browse some Web sites starting with the Web site that the teacher has given. They read the explanations of the places, and choose at least three pictures of the places where they would like to travel. The students print out the pictures and paste them on the printed handout, or save the pictures on the computers and paste them on the handout in word processor file format. Also the students fill in the handout with information they get at the Web sites. Looking at the handout, the students record their own descriptions and explanation using an audio editor such as *Goldwave*. While they speak, they can look at their notes and the pictures. At the end of the class, the teacher collects the audio files, and gives feedback on the students' speaking. A possible follow-up activity in class would be to have the students present in small groups.

2. Example B: Review of a movie - listening and writing

This activity allows students to integrate listening and writing skills. Before the CALL activity, the teacher prepares several short excerpts of movies in computerized format. The materials can be commercially available movies such as DVD titles, or personal movies taped by the teacher or the students, or digitized clips obtained from a movie Web site such as *Cinema1* or *Movies.com*, or a news clips obtained from a news cite such as *CNN*. In the previous lesson, the teacher shows the list of movies, and asks the students to form pairs according to which movie excerpt they would like to watch. In the CALL activity, the students watch the short excerpt at least twice, and write a description using word processing software. Because the excerpt is computerized, the students can watch it as many times as they want. At the end of the class, the teacher collects the written descriptions in order to check the students' comprehension and writing skills.

In the case of the materials retrieved from the Internet, a fast connection to the Internet is needed because most movie materials are not downloadable. Watching short authentic excerpts and writing to share ideas with their peers will motivate students as they practice their listening and writing skills.

3. Example C: Biography- reading, writing, listening and speaking

This activity integrates all four skills around one topic. In regular classes, the students have already read texts about a famous person, for example, Martin Luther King, Jr. The teacher prepares a different article and a video biography about the famous person for the students' use on the computers. The article can be either a word processing file, or an HTML file. The video can be either a pre-recorded file obtained from a CD-ROM or a Web site, or computerized file recorded by the teacher. In the CALL activity, the students read the article, and watch the video to collect information. They then use the information to write a memorial article. In the case of M. L. King, Jr., they can write an article pretending that it is 1968 when he died. After writing the memorial article, the teacher forms pairs at random on the LAN, lets them read the article aloud to the partner and talk about it using conferencing software, such as *NetMeeting*.

In the final stage of the activity, it might be good to let the students write on bulletin board system (BBS) on the LAN to share their ideas. Another follow-up is to videotape students presenting their articles as if they were newscasters.

As Egbert (1999) points out in discussing possibilities of video conferencing, using computers facilitates the integration of skills in some ways more readily than in class practice does. For example, watching a video and writing a summary of it could be difficult in class, but seems more natural on the computers. Also, reading someone's message and responding to the ideas is also a genuine communicative action that happens readily on the computers. Thus, the computer provides a very good setting for incorporating language skills together in a natural way that approximates the authentic communication process.

III. Basic skills needed to utilize CALL

In order to make use of CALL, there are some basic skills necessary for both teachers and students. These skills include the following five areas:

1) Using a mouse: The basic skills needed are clicking, double clicking, dragging-and-dropping, and the function of the left button. It might be a good idea to use a game such as *Solitaire* to teach students how to use a mouse.
2) Keyboarding: Skills required are using basic keys such as enter, delete, backspace, and tab. As Johnson and Brine (1999) report, typing tutor software such as *Mario Teaches Typing* helps familiarize students with standard keyboard.
3) Word processing: Students need to know how to create, save, name, open, and print a document, how to delete and capitalize letters, and how to create a new paragraph.
4) Internet: The basic skills needed are clicking on links, using the back button, scrolling, and using the address or location line to enter a given URL. Students should also know how to use a

general search engine such as *Yahoo* or *Google*.

5) E-mail: Students should learn how to create, send, and receive a message.

Each of these five skills can be incorporated into the normal lesson. For example, the typing tutor can be used to reinforce the alphabet and keyboard, and if a voice prompt is provided, the activity can also be good for listening and pronunciation. In fact, students learn these basic computer skills rapidly and can often help one another to learn them too.

IV. General guidelines for effective use of CALL

As teachers begin to use CALL, it is important for them to keep in mind that *the elements that make a CALL lesson effective are the same elements that make every lesson effective*. These elements include 1) clear instructions, 2) high interest topics, and 3) interactive tasks.

Generally, teachers should organize the directions in a clear step-by-step way. It is a good idea to let students know the purpose and parts of the lesson. Also, one step should be given at a time. In this way, students can understand the lesson more clearly. In addition, pre- and post-CALL activities should be well organized. This idea of organizing pre- and post-CALL activities and having step-by-step, clear instructions is supported by many authors including Kost (1999) and Brett (1994).

In addition, as with any language lesson, teachers should prepare CALL activities with topics of interest to students. If the students find the topics interesting, CALL activities will motivate them. Teachers might well ask students what they are interested in and give them choices of topics.

Furthermore, with CALL activities, teachers should encourage interaction among students. Interaction can allow them to help each other and form a community in a class. It is important to design the tasks in interactive ways with the natural communicative-oriented goals.

As general guidelines, eight conditions for an optimal language learning environment, whether in class or with the computer, pointed out by Egbert and Hanson-Smith (1999) should be of help:

1. Learners have opportunities to interact and negotiate meaning.
2. Learners interact in the target language with an authentic audience.
3. Learners are involved in authentic tasks.
4. Learners are exposed to and encouraged to produce varied and creative language.
5. Learners have enough time and feedback.
6. Learners are guided to attend mindfully to the learning process.
7. Learners work in an atmosphere with an ideal stress/anxiety level.

8. Learner autonomy is supported. (pp. 3-7)

One more important guideline especially applied to CALL is that teachers should incorporate CALL activities in regular lessons, giving a definite role to the CALL activities in the wider curriculum. CALL activities given on regular basis and clearly related with the target points in the regular lessons will yield richer effects on students' learning. CALL activities can be used as lead-ins to activate students knowledge, or as follow-ups to reinforce what they have learned. In addition, CALL activities should be balanced with a variety of other activities to make them effective. When the activity is familiarized as a kind of routine, the outcome of a CALL activity can be more beneficial, and the computer literacy of the students are re-enforced as a by-product of the English lesson.

Another guideline for effective use of CALL is that teachers should be aware of the effectiveness of CALL materials made by themselves. As Penderson (cited in Levy, 1997) points out, students tend to show stronger interest and motivation toward materials that teachers make themselves. Some teachers, including Fischer and Farris (1999), Godwin-Jones (1999), and Nelson and Oliver (1999) recommend the use of authoring systems, although it is time-consuming. Their studies demonstrate how teachers can create a CALL activity using an authoring system once in a while to balance with regular class activities. If teachers feel unsatisfied with prepared CALL materials, for example, then they might try to make materials by themselves using an authoring system such as *Libra* in order to have greater flexibility. The CALL materials will be motivating more for their students.

Finally, CALL, like all effective language instruction, must follow sound pedagogical principles. As obligatory elements in CALL, Chapelle (1994) proposes three features of language learning texts: 1) comprehensible input, theorized by S. Krashen, 2) interaction among learners for negotiation of meaning, hypothesized by M. Long, and 3) comprehensible output, maintained by M. Swain. Based on these three concepts, Chapelle (1998) proposes seven questions for empirical evaluation of multimedia CALL:

1. Is there evidence that learners attended to salient linguistic characteristics of the target language input?
2. Do learners choose to see the modifications of linguistic input?
3. Do learners produce "comprehensible output"?
4. Is there evidence that learners notice errors in their output?
5. Do learners correct their linguistic output?
6. To what extent do the learners interact with the computer to engage in modified interaction focusing on form and meaning?
7. Do learners work toward communication-oriented goals? (pp. 29-31).

Also, based on similar features, Holliday (1999) proposes six conditions that CALL activities should provide learners with:

- opportunities for interaction to negotiate meaning
- opportunities to hear or read modified comprehensible input
- opportunities to produce or write modified comprehensible output
- input that allows for a focus on target features of the second language
- possibilities for optimal feedback either in the form of self-access windows or buttons or in the form of interaction
- a rich context in which the second language facilitates comprehensible input (p. 188).

These sets of suggestions, both from Chapelle and Holliday, should serve as a solid basis for teachers to evaluate CALL software and CALL activities.

V. Conclusion

As Pennington (1996b) points out, CALL provides yet another useful device for learning language under favorable conditions. Levy (1997) emphasizes that the success of any CALL activity depends on the teacher. Teachers are a key contributing factor to the effectiveness of the CALL activity. For that reason, teachers must be given support and training for introducing CALL activities.

In Japan especially, teachers should also become more aware of the advantages and the effectiveness of the computer in language learning. In addition, teachers must be aware that when using CALL activities their role becomes one of a guide and facilitator, as stated in Beauvois (1997), Kost (1999), and Johnson and Brine (1999). Teachers should make full use of all the educational resources that are available including computers. In order to accomplish this, teachers should try their best to practice in available training to begin to use computers. In this way, both teachers and students will be able to enjoy the effectiveness of the computer in language learning.

In summary, CALL can become a powerful tool for language learning with the advantages of 1) a great number of opportunities for authentic materials and tasks, 2) a scaffolding environment to facilitate language learning, 3) a varied learning environment to address students' different learning styles, with learning aids such as visual aids or help files, and 4) opportunities for interaction to reinforce language learning. Especially in English lessons in Japanese schools, where practical competence for communication in English should be developed, CALL can offer effective English language learning environment with these advantages. Now Japanese teachers of English (JTEs) can begin to make full use of computers, to create effective lessons for language learning, and to help students to prepare for real communication.

References

Works cited

Aist, G. (1999). Speech recognition in computer-assisted language learning. In K. Cameron (Ed.), Computer assisted language learning (CALL): Media, design, and applications (pp. 165-182). Lisse: Swets & Zeitlinger.

Beauvois, M. H. (1997). Computer-mediated communication: Technology for improving speaking and writing. In M. D. Bush (Eds.), Technology-enhanced language learning (pp. 165-184). Chicago: National Textbook Company.

Bickel, B. & Trusscello, D. (1996). New opportunities for learning: Styles and strategies with computers. TESOL Journal, 6 (1), 15-17.

Brett, P. (1994). Using text reconstruction software. ELT Journal, 48, 329-336.

Chapelle, C. A. (1994). Call activities: Are they all the same?. System, 22 (1), 33-45.

Chapelle, C. A. (1998). Multimedia CALL: Lessons to be learned from research on instructed SLA. Language Learning & Technology, 2 (1), 22-32. Retrieved October 21, 1999 from the World Wide Web: http://polyglot.cal.msu.edu/llt/vol2num1/article1/index.html.

Cobb, T. & Stevens, V. (1996). A principled consideration of computers and reading in a second language. In M. C. Pennington (Ed.), The power of CALL (pp. 115-136). Houston: Athelstan.

Coniam, D. (1999). Voice recognition software accuracy with second language speakers of English. System, 27, 49-64.

Cummins, J. (1998). E-lective language learning: Design of a computer assisted text-based ESL/EFL learning system. TESOL Journal, 7 (3), 18-21.

Egbert, J & Hanson-Smith, E. (1999). Computer-enhanced language learning environments: An overview. In J. Egbert & E. Hanson-Smith (Eds.), CALL environments (pp. 1-13). Alexandria, VA: TESOL.

Egbert, J (1999). Classroom practice: Creating interactive CALL activities. In J. Egbert & E. Hanson-Smith (Eds.), CALL environments (pp. 27-40). Alexandria, VA: TESOL.

Fischer, R. & Farris, M. (1999). The Libra multimedia authoring environment and CALL multimedia courseware. CALICO Journal, 17 (1), 59-82.

Godwin-Jones, R. (1999). Web course design and creation for language learning. CALICO Journal, 17 (1), 43-58.

Holliday, L. (1999). Theory and research: Input, interaction, and CALL. In J. Egbert & E. Handson-Smith (Eds.), CALL environment (pp. 181-188). Alexandria, VA: TESOL.

Hoven, D. (1999). A model for listening and viewing comprehension in multimedia environments. Language Learning & Technology, 3 (1), 88-103. Retrieved September 14, 1999 from the

World Wide Web: http://polyglot.cal.msu.edu/llt/vol3num1/hoven/index.html.

Ikeda, N. (1999). Effects of different types of images on the understanding of stories: Basic research to develop Japanese teaching materials for use on the Internet. System, 27, 105-118.

Johnson, E. M. & Brine, J. W. (1999). Design and development of CALL courses in Japan. CALICO Journal, 17 (2), 251-268.

Kost, C. R. (1999). Enhancing communicative language skills through effective use of the World Wide Web in the foreign language classroom. Foreign Language Annals, 32, 309-320.

Leppänen, S. & Kalaja, P. (1995). Experimenting with computer conferencing in English for academic purposes. ELT Journal, 49(1), 26-36.

Levy, M. (1997). On the nature of CALL. In M. Levy, Computer-assisted language learning (pp. 215-232). Oxford, NY: Clarendon Press.

Nelson, T. & Oliver, W. (1999). Murder on the Internet. CALICO Journal, 17 (1), 101-114.

Pennington, M. C. (1993). Exploring the potential of word processing for non-native writers. Computers and the Humanities, 27, 149-163.

Pennington, M. C. (1996a). The computer and the non-native writer: A natural partnership. NJ: Hampton Press, Inc.

Pennington, M. C. (1996b). The power of the computer in language education. In M. C. Pennington (Ed.), The power of CALL (pp. 1-14). Houston: Athelstan.

Phinney, M. (1996). Exploring the virtual world: Computers in the second language writing classroom. In M. C. Pennington (Ed.), The power of CALL (pp. 137-152). Houston: Athelstan.

Skinner, B. & Roger, A. (1999). Computer conferencing - does it motivate EFL students?. ELT Journal, 53, 270-279.

Warschauer, M. (1995). E-mail for English teaching. Alexandria, VA: TESOL.

Witt, S. & Young, S. (1998). Computer-assisted pronunciation teaching based on automatic speech recognition. In S. Jager, J. Nerbonne & A. V. Essen (Eds.), Language teaching and language technology (pp. 25-35). Lisse: Swets & Zeitlinger.

List of software

Encarta 2000. (1999). Microsoft Corporation. Redmond: WA. <http://www.microsoft.com>.

GoldWave. <http://www.goldwave.com/>.

Libra. (1998). <http://www.libra.swt.edu/>.

Mario Teaches Typing. Interplay Productions. Irvine: California. <http://www.interplay.com/>.

NaturallySpeaking. (1999). Dragon Systems, Newton: MA. <http://www.dragonsys.com/>.

NetMeeting. (1999). Microsoft Corporation. Redmond: WA. <http://www.microsoft.com>.

Note Pad. (1998). Microsoft Corporation. Redmond: WA. <http://www.microsoft.com>.

Solitaire. (1998). Microsoft Corporation. Redmond: WA. <http://www.microsoft.com>.

TexToys. (1999). M. Holmes, J. Higgins and M. Higgins.
<http://www.net-shopper.co.uk/creative/education/textoys.htm>.

EFL material Web sites

Cinema1. <http://www.cinema1.com/>.

CNN. <http://www.cnn.com/>.

Movies.com. <http://www.movies.com/>.

National Geographic Traveler. <http://www.nationalgeographic.com/traveler/index.html>.

Randall's ESL Cyber Listening Lab. <http://www.esl-lab.com/>.

Sources for teachers: Annotated

Subscribing to TESLCA-L mailing list

It is recommended to subscribe to TESLCA-L mailing list. The mailing list is full of information and interesting discussion. To subscribe the list, it is necessary to subscribe TESL-L mailing list first by sending an e-mail with the sentence "SUB TESL-L <First Name> <Last Name>" to LISTSERV@cunyvm.cuny.edu. After receiving a welcome message from the server, any member in the list can subscribe to CALL branch by sending an e-mail with the sentence "SUB TESLCA-L <First Name> <Last Name>" to LISTSERV@cunyvm.cuny.edu.

Visiting Web sites

TESOL <http://www.tesol.edu/>: Teachers of English to Speakers of Other Languages. This site has useful information for teachers of English in general.

Language Learning and Technology <http://llt.msu.edu/>: This journal is available only on the Internet. Publication began on July 1997.

CALICO <http://calico.org/>: The Computer Assisted Language Instruction Consortium. This is one of the oldest organizations specialized in CALL.

CALL-EJ On-line <http://www.lerc.ritsumei.ac.jp/callej/>: It is part of the JALT (The Japan Association for Language Teaching) CALL SIG (Special Interest Group) family.

Dave's EFL Café <http://www.pacificnet.net/~sperling/eslcafe.html>: This page maintained personally has a good resource for education.

Searching with general search engine

Yahoo! <http://www.yahoo.com>: One of search engines with registration method. If categorized

information is needed, this gives a good start. One of caveats is that information might be sometimes dated, and the links can be dead. Because registration needs manual work, it takes some time for the newest information to be registered.

Google <http://www.google.com/>: One of search engines with automatic search robot program. If categorized information is not enough or dated, more information is available in this type of search engine. One of caveats is that amount of information tends to be enormous if "key words" are not adequate. To have enough amount of information, some practice is needed.

Appendix 1: Sample handout for A. Reading, 3. Example C: Skimming and scanning

Search engines: Yahoo: <http://www.yahoo.com> (Categorized information)

Google <http://www.google.com/> (Not categorized information)

1. URL:
Topics you want to know:
Information you found:
2. URL:
Topics you want to know:
Information you found:
3. URL:
Topics you want to know:
Information you found:
4. URL:
Topics you want to know:
Information you found:
5. URL:
Topics you want to know:
Information you found:

Class	No.	Name
Class	No.	Name
Class	No.	Name

Appendix 2: Sample handout for C. Listening, 2. Example B: Listening to review the textbook

Direction: Put check mark (✓) on the ear mark (👂) of the sentence which you hear.

👂 Because of this long slope, the course is said to be one of the hardest courses in the world.

👂 But the latter part of the course has a 17-kilometer slope.

👂 I am over 50 now, but I still run 10 kilometers three times a week.

👂 I could see the blue Aegean Sea on my left.

👂 I think I have run 140,000 kilometers so far.

👂 In the summer of 1994, I had a chance to run a marathon course in Greece.

👂 It has been 40 years since I started running.

👂 It is a one-way course which starts on the Plain of Marathon and finishes at the Olympic Stadium in Athens.

👂 That distance equals three and a half times around the world.

👂 The ocean breeze was refreshing.

👂 The first part of the course was fairly easy.

Class:	No.	Name:

Adapted from K. Suenaga et al. (Eds.), Powwow English Course I. Tokyo: Bun-eido. (1998). (pp. 72-73).

Appendix 3: Sample handout for D. Speaking, 3. Example C: Use of conferencing

Direction to the customer:

Your telephone line is dead for some unknown reasons. From a pay phone, you call the customer service representative to ask to have the line reconnected once again. You know that it takes two hours to reconnect the line. In two hours, the auction on the Internet that you want to join will close. The auction is for personal items, so you do not want to talk about it, but you are in a great hurry, so you need the connection urgently. You can also talk to the boss if the representative is not helpful.

Direction to the customer representative:

The computer system is down, so you cannot fulfill any requests from customers. However, you are told by your boss not to let customers know that fact. You pretend that there is no problem, but you must persuade customers to wait for a while, for example 24 hours. You must be careful not to make the customer angry enough to talk to your boss, because one more complaint about your job means that you will lose the job.

Appendix 4: Sample handout for E. Integrated Skills, 1. Example A: Introducing a place

Direction: Choose three places and get information about each.

Paste a picture here	What is the name of the place?
	Where is it?
	Description
	Why is it interesting?
	More information
Paste a picture here	What is the name of the place?
	Where is it?
	Description
	Why is it interesting?
	More information
Paste a picture here	What is the name of the place?
	Where is it?
	Description
	Why is it interesting?
	More information

Name:	Name:
Name:	Name: